



# Course Directive

## ID721001: Mobile Application Development

### Semester One, 2022

#### Course Information

Credits: 15 Credits  
Prerequisite: IN/D607001: Introductory Application Development Concepts  
Timetable: Tuesday 8 AM D105b & Thursday 8 AM D105b

#### Teaching Staff

Name: Grayson Orr  
Position: Kaiako & Second/Third-Year Coordinator  
Office Location: D318  
Email Address: grayson.orr@op.ac.nz

#### Course Dates

Term 1: Monday 21 February - Thursday 14 April  
Mid Semester Break: Monday 18 April - Friday 29 April  
Term 2: Monday 02 May - Thursday 23 June

#### Public Holidays & Anniversary Days

A list of public holidays & anniversary days can be found here - <https://www.op.ac.nz/students/importantdates>

#### Aims

To learn the specifics of mobile application design & development. Learners will be able to develop & publish **Android** mobile applications using **Kotlin**, **Android Studio** & **Google Play Store**.

#### Learning Outcomes

At the successful completion of this course, learners will be able to:

1. Implement & publish complete, non-trivial, industry-standard mobile applications following sound architectural & code-quality standards.

2. Identify relevant use cases for a mobile computing scenario & incorporate them into an effective user experience design.
3. Follow industry standard software engineering practice in the design of mobile applications.

## Assessments

Assessment	Weight	Due Date	Learning Outcomes
Project	65%	10-06-2022 (Friday)	1, 2, 3
Practicals	15%	08-03-2022 (Tuesday)	1, 2, 3
Presentation	20%	21-06-2022 (Tuesday)	2, 3

## Provisional Schedule

- **Assessment Work** is optional attendance
- Course & teaching surveys will be emailed to you in **Week 12**

Week	Date	Session	
1/Tahi	21-02-2022	Kotlin 1	Kotlin 2
2/Rua	28-02-2022	Practicals Assessment Work	
3/Toru	07-03-2022	Android Overview	Fragment
4/Whā	14-03-2022	ViewModel	LiveData
5/Rima	21-03-2022	DataBinding	Retrofit
6/Ono	28-03-2022	RecyclerView	Firestore Auth
7/Whitu	04-04-2022	Room Database	Espresso
8/Waru	11-04-2022	DataStore	Google Maps
Mid Term Break			
9/Iwa	02-05-2022	KDoc & Dokka	Google Play Store
10/Tekau	09-05-2022	Project Assessment Work	
11/Tekau mā tahi	16-05-2022	Project Assessment Work	
12/Tekau mā rua	23-05-2022	Project Assessment Work	
13/Tekau mā toru	30-05-2022	Project Assessment Work	
14/Tekau mā whā	06-06-2022	Project Assessment Work	
15/Tekau mā rima	13-06-2022	Presentation Assessment Work	
16/Tekau mā ono	20-06-2022	Presentation Assessment Work	

## Resources

### Software

This paper will be taught using **Android Studio**. An installer for **Android Studio** are available. See <https://developer.android.com/studio>. Refer any problems with downloads or installers to Rob Broadley in D205a.

## Readings

No textbook is required for this course. URLs to useful resources will be provided in the lecture notes.

## Course Requirements & Expectations

### Learning Hours

This course requires **150 hours** of learning. This time includes **10 hours** of meeting time, & **140 hours** of self-directed reading, preparation & completion of assessments.

### Learning & Teaching Methods

From **Week Three** onwards, the lectured course material will be pre-recorded & available to you via **Microsoft Teams**. You are **required** to view the recording prior to attending the class. Class time will consist of discussions & application development work.

### Criteria for Passing

To pass this paper, you must achieve a cumulative pass mark of **50%** over all assessments. There are no reassessments or resits.

### Attendance

- Learners are expected to attend all classes, including lectures & labs.
- If you cannot attend for a few days for any reason, contact the course.

### Communication

**Microsoft Outlook/Teams** are the official communication channels for this course. It is your responsibility to regularly check **Microsoft Outlook/Teams** & **GitHub** for important course material, including changes to class scheduling or assessment details. Not checking will not be accepted as an excuse.

### Snow Days/Polytechnic Closure

In the event **Otago Polytechnic | Te Kura Matatini ki Otago** is closed or has a delayed opening because of snow or bad weather, you should not attempt to attend class if it is unsafe to do so. It is possible that the teaching staff will not be able to attend either, so classes will not physically be meeting. However, this does not become a holiday. Rather, the course material will be made available on **GitHub** for classes affected by the closure. You are responsible for any course material presented in this manner. Information about closure will be posted on the **Otago Polytechnic | Te Kura Matatini ki Otago Facebook** page <https://www.facebook.com/OtagoPoly>.

### Group Work & Originality

Learners in the **Bachelor of Information Technology** programme are expected to hand in original work. Learners are encouraged to discuss assessments with their fellow learners, however, all assessments are to be completed as individual works unless group work is explicitly required (i.e. if it doesn't say it is group work then it is not group work - even if a group consultation was involved). Failure to submit your original work will be treated as plagiarism.

### Referencing

Appropriate referencing is required for all work. Referencing standards will be specified by the teaching staff.

## Plagiarism

Plagiarism is submitting someone else's work as your own. Plagiarism offences are taken seriously & an assessment that has been plagiarised may be awarded a zero mark. A definition of plagiarism is in the Student Handbook, available online or at the school office.

## Submission Requirements

All assessments are to be submitted by the time, date, & method given when the assessment is issued. Failure to meet all requirements will result in a penalty of up to **10%** per day (including weekends).

## Extensions

Extensions are only available for unusual circumstances. These must be applied for, & approved, before the submission date.

## Impairment

In case of sickness contact the teaching staff or **Head of Information Technology (Michael Holtz)** as soon as possible, preferably before the assessment is due. The policy regarding the granting of a mark that considers impaired performance requires a medical certificate & a medical practitioner's signature on a form. You may refer to the guide on impaired performance on the student handbook.

## Appeals

If you are concerned about any aspect of your assessment, approach the teaching staff in the first instance. We support an open-door policy & aim to resolve issues promptly. Further support is available from the **Head of Information Technology (Michael Holtz)** & **Second/Third-Year Coordinator (Grayson Orr)**. **Otago Polytechnic | Te Kura Matatini ki Otago** has a formal process for academic appeals if necessary.

## Other Documents

Regulatory documents relating to this course can be found on the **Otago Polytechnic | Te Kura Matatini ki Otago** website.